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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/540,012	03/31/2000	John S. Haikin	36J.P269	2555

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FITZPATRICK CELLA HARPER & SCINTO  
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NEW YORK, NY 10112

EXAMINER
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NGUYEN, MADELEINE ANH VINH

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 07/21/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/540,012

Applicant(s)

HAIKIN ET AL.

Examiner

Madeleine AV Nguyen

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) 52-87 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-51 and 88-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5, 6, 8, 9
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2626

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of group 1 (claims 1-50, 88-90) in the reply filed on paper 11 is acknowledged. The traversal is on the ground(s) that it is incorrect to state that the claims are directed to subcombinations disclosed as usable together in a single combination. This is not found persuasive because groups I, II claim a method for managing color data to transform source color image data from a source device into destination color image data wherein a source color transform is constructed and applied based on the source device color characteristic data while groups III and VI claim a memory comprising a colorimetric data structure which is formatted according to a predetermined format. However, the examiner agrees to reformulate the restriction requirement into no more than two groups: a first group (group I) of claims 1-51, 88-90 and a second group (group II) of claims 52-87.
2. The Election of Species requirement is withdrawn since it is a burden for the examiner to designate all the different species in claims 1-50.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-35, 41-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring et al (US Patent No. 5,754,184).

Concerning claim 1, Ring et al discloses a method for managing color data to transform source color image data from a source device into destination color image data for rendering by a destination device (Fig.2) comprising the steps of accessing a source color data file (38), constructing a source color transform (44, 42, 46); applying the source color transform to the source image data to transform the source color image data from a source device color space into intermediate color image data in an intermediate color space (40), (col. 5, line 36 – col. 6, line 22).

Ring et al does not directly teach that the source color data file containing source device color characteristic data. However, Ring further teaches in Fig.5 that the input device characteristic models or transforms can be obtained from the device manufacturer or can be measured based on the viewing conditions (Fig.5; col. 9, lines 1-41). It would have been obvious to one skilled in the art at the time the invention was made to consider the source data file in Ring contains source device color characteristic data since Ring teaches that “the present invention converts all inputs into an intermediate color data metric 40 with an associated set of intermediate viewing condition assumptions.” (col. 3, lines 48-53).

Concerning claims 2-3, 8-35, 41-50, Ring et al further teaches the source device color characteristic data contains measured colorimetric data (44) and corresponding device signal data (42), (claim 2); the color data file contains viewing condition data (42), (claim 3); the device signal data represents a set of input or output command signal values for the source device (claims 8, 10),(col. 5, lines 19-25); the measured colorimetric data represents a set of measured

Art Unit: 2626

color values corresponding to a color image rendered by the source device (claims 9, 11), (col. 3, lines 48-65); the input command signal values are for the printer (26) and the set of measured color values rendered by the printer (claim 12); the source device is a scanner (10), (claim 13); the step of transforming the intermediate color image data into destination color image data in a destination device color space (60), (claim 14); the step of incorporating the source color transform in a color transformation sequence and the step of applying the color transform sequence to the source color image data (Fig.2), (claims 15, 16); wherein the step of transforming the interim color image data into destination color image data includes accessing a destination color data file (50), constructing a destination color transform (48), transforming a set of color data from the intermediate color space to the destination device color space (60) by using a color profile, (claims 17, 18); the intermediate color space is a device independent color space such as CIE LAB, XYZ (col. 9, lines 7-11), (claims 19-22, 41-44); the construction of the source color transform is based on the viewing condition data or a set of desired viewing condition data and utilizes a color appearance model, a look-up table, polynomial function wherein the source color transform is a single variate or multi-variate transform (Figs.2-3; col. 3, lines 48-65; col. 4, lines 5-21; col. 5, line 19 – col. 7, line 32; col. 9, lines 1-63), (claims 23-31, 45-46); the step of optimizing the source color transform wherein the source image transform is formatted according to a predetermined standardized format (claims 31-35); the source color transform is stored in a memory, a device color profile wherein a source gamut boundary description is used in conjunction with a destination gamut boundary description (claims 47-50).

Concerning claims 4-7, Ring et al further teaches that the color data file contains viewing condition data (42) wherein the viewing condition includes specification data.

Ring et al fails to directly teach that the viewing condition data includes ambient colorimetric specification data, surround colorimetric specification data, background colorimetric specification data or adapting field colorimetric specification data. However, in Fig.1, Ring et al teaches colorimetric specification 14 which includes different colorimetric specifications such as XYZ or separations such as CMYK in order to construct a source color transform to transform the source color image data from a source device color space into intermediate color image data as claimed (col. 5, lines 3-34). It would have been obvious to one skilled in the art at the time the invention was made to includes the above mentioned specifications in the colorimetric specification 14 in Ring et al system since all of the specifications are for transforming an image data from a source color space to an intermediate color space and the claimed specifications are commonly known in the art.

Concerning claim 51, Ring teaches a method as discussed in claims 1-50 above. Ring further teaches the step of incorporating the source color transform in a color transformation sequence (Fig.2).

5. Claims 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring et al as applied to claim1 above, and further in view of Meir et al (US Patent No. 6,037,950).

Concerning claims 36-40, Ring et al fails to teach a set of tags for a set of viewing condition data corresponding to a set of viewing conditions. Meir et al discloses a method for facilitating image transfer between transform spaces comprising the step of providing a profile viewing environment which includes a tag table acting as a table of contents for the profile tags and the tag element data therein (Figs.1-3; col. 3, lines 39-40; col. 4, lines 13-28). It would have

Art Unit: 2626

been obvious to one skilled in the art at the time the invention was made to combine the teaching of a profile including a set of tags in Meir et al in the set of viewing conditions in Ring et al since Meir also teaches a viewing condition profile for facilitating image transfer between transform spaces of different sources and destinations.

6. Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring et al and Meir as applied to claims 1-37 above, and further in view of Holm (US Patent No. 6,249,315).

Concerning claims 38-40, Ring et al teaches that the source color data file is formatted according to a predetermined standardized format.

Ring fails to teach that the predetermined standardized format is an extended CGATS/IT8 format. However, it was commonly known that CGATS and IT8 are standardized format. Holm supports that well-known in the prior art by teaching that “there is a proposal in the ICC to allow another standard color space based on a standard monitor. This color space is an RGB space, making it more appropriate for use with many capture devices, particularly RGB-type digital cameras and film cameras. This proposal is also being developed into a standard:

“CGATS/ANSI IT8.7/4, Graphic technology-Three Component Color Data Definitions.” (col. 6, lines 4-13). It would have been obvious to one skilled in the art at the time the invention was made to includes the standardized format of CGATS/IT8 in the format of the source color data file in Ring et al since Ring does not limit any standard format for the source color data file.

Art Unit: 2626

7. Claims 88-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring in view of Meir and Holm.

Concerning claims 88-90, Ring in view of Meir, Holm teaches a program memory for storing process steps executable to perform a method according to any of claims 1-51.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Hultgren, III et al (US Patent No. 6,128,415) discloses a device profiles for use in a digital image processing system that capture, transform or render color components of an image.

b. Higgins et al (US Patent No. 5,835,627) teaches a system and method for evaluating an effect of a sequence of image processing operations on the input image in response to upstream device characteristic data received from an input device profile and downstream device characteristic data received from an output device profile.

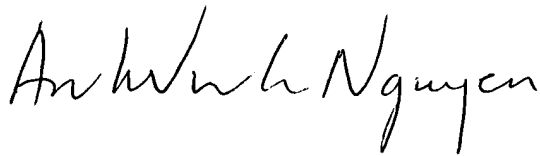
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 2626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Madeleine AV Nguyen  
Primary Examiner  
Art Unit 2626

July 13, 2004